



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
Before The Board Of Appeals And Interferences

Appln. No. : 10/663,934 Confirmation No. 2322
Applicant : Prasad, R.
Filed : 09/16/2003
TC/A.U. : 1772
Examiner : Hon, S. F.
Docket No. : HOETRE24ACON
Customer No. : 00270
Title: : Process for Producing Coated Polymeric Articles
And the Articles Produced Thereby

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22323-1450

BRIEF ON APPEAL

Sir:

This Brief on Appeal is timely filed within two months from the filing of a Notice of Appeal. The Notice of Appeal was filed by express mail on October 18, 2005. The appeal is from the Final Office Action dated April 19, 2005, which rejected pending claims 10-26.

The fee of \$500.00 for filing this Brief on Appeal is attached hereto. The Director is hereby authorized to charge any deficiency in any fees due with the filing of this paper, or credit any overpayment, to our Deposit Account, No. 08-3040.

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December 16, 2005

(1) Real Party In Interest

The inventor of the subject matter of this application has assigned the rights of the invention to Hoechst Tresaphan GmbH. This assignment was recorded in the USPTO on September 16, 2003 at Reel 014512, Frame 0481.

(2) Related Appeals And Interferences

U.S. Patent Application No. 09/135,228, now granted U.S. Patent No. 6,649,235 B2, issued November 18, 2003, is the parent of the instant case under appeal. The '235 patent is directed to a method of making a coated polymeric article/film. A notice of appeal and appeal brief were filed before grant of the '235 patent. Grant of patent '235 ensued following a voluntary amendment filed after the Brief was filed, but before any action in regards to an Examiner's answer or BPAI decision. The real party in interest and the party's representative are the same as in this application.

(3) Status Of Claims

Claims 10-26 stand rejected under 35 U.S.C. § 103(a) in the Final Office Action dated April 19, 2005. Claims 10-26 are the subject of the appeal.

The amendments filed after the final action were entered, obviating the 35 USC § 112, second paragraph rejection.

(4) Status Of Amendments

The Examiner has entered the amendments filed after the final action in accordance with 37 C.F.R. § 1.116, but prior to the Notice of Appeal that was submitted October 18, 2005. As such, there are no outstanding amendments since the amendments were entered.

(5) Summary Of Claimed Subject Matter

The invention provides a coated polymeric article comprising a maleic anhydride modified polyolefin and a polyolefin coextruded to produce a polymeric substrate having a modified maleic anhydride surface and a polyolefin surface wherein the coextruded substrate is further coated with a polysilicate (page 2: lines 10-13). The invention also provides coated films consistent with the article described herein (page 7: lines 7-9).

(6) Grounds Of Rejection To Be Reviewed On Appeal

In the October 27, 2005 Advisory Action, two 35 U.S.C. § 103(a) rejections of the claims were maintained. The issues in this appeal are:

(i) Whether the examiner properly rejected claims 10 and 13-26 as unpatentable over the teachings of Hubbard (US Patent No. 5,882,798) in view of Adur (US Patent No. 4,957,968) and Krueger (US Patent No. 4,552,714), as evidenced by Alger (Polymer Science Dictionary, Second edition).

(ii) Whether the examiner properly rejected claims 11 and 12 as unpatentable over the teachings of Hubbard in view of Adur and Krueger, as evidenced by Alger, as applied to claims 10 and 13-26, and further in view of Jones (US Patent No. 3,442,686).

(7) Argument

A. *Summary of Appellant's Arguments*

The Examiner cites documents allegedly supporting obvious-type rejections of the claims on appeal. However, the cited documents fail to supply both the requisite motivation and the reasonable expectation of success which are required

to render the present invention obvious.¹ Further, even if combined, the cited documents do not suggest the present invention.

B. *Arguments to Reverse Rejections of Record for Claims 10 and 13-26*

(i) CLAIMS 10, 23, AND 24

The Examiner argues claims 10, 23, and 24 of the instant invention, drawn to a coated polymeric article/film, would have been obvious and therefore unpatentable over the teachings of Hubbard (US Patent No. 5,882,798) in view of Adur (US Patent No. 4,957,968) and Krueger (US Patent No. 4,552,714), as evidenced by Alger (Polymer Science Dictionary, Second edition). This rejection should be reversed.

The Examiner alleges Hubbard teaches:

“[A] coated polymeric article comprising (a) a polymeric substrate consisting of a first outer surface of a polymeric (primer) layer and a second outer surface of a selected polyolefin layer (polypropylene), and (b) a polysilicate coating of the primer layer.”

The Examiner admits there is *no* teaching in Hubbard directed to a maleic anhydride modified polyolefin layer on the outer surface (see office action mail date 4/19/2005 at page 3). To correct the complete absence of the teaching of a maleic anhydride modified polyolefin layer on the outer surface in Hubbard, the Examiner relies on Adur for teaching that polypropylene can be grafted with maleic anhydride, which can be used as an adhesive for surfaces such as glass. The

¹ “Where claimed subject matter has been rejected as obvious in view of a combination of prior art references, a proper analysis under USC § 103 requires . . . (1) whether the prior art would have suggested to those of ordinary skill in the art that they should make the claimed composition of device, or carry out the claimed process; and (2) whether the prior art would also have revealed that in so making or carrying out, those of ordinary skill would have a reasonable expectation of success.” *In re Vaeck*, 947 F. 2d 488, 20 USPQ2d 1438, 1442 (Fed. Cir. 1991).

Examiner's reliance on Alger is definitional only indicating that glass is a kind of polysilicate. Finally, the Examiner relies on teachings in Kreuger directed to coextrusion alleging:

“Krueger teaches that a layer of polyolefin (polypropylene) is coextruded with a layer of maleic anhydride modified polyolefin (polypropylene), wherein the maleic anhydride modified polyolefin is used as an adhesive layer”.

This rejection set forth by the Examiner is deficient in many respects.

The documents cited do not supply both the requisite motivation² and the reasonable expectation³ of success which is required for a proper obvious-type *prima facie* case rejection under 35 U.S.C. § 103(a) rejection. Furthermore, the references do not teach the instant invention.

There is no motivation to combine the teachings of the primary and secondary references. More particularly, Hubbard does not teach or suggest a coated polymeric article comprising a maleic anhydride modified polyolefin and a polyolefin *coextruded* to produce a polymeric substrate having a modified *maleic anhydride surface* and a polyolefin surface wherein said article is coated with a polysilicate. Furthermore, the examiner's reliance on Adur to remedy the lack of any teaching directed to a polyolefin having a modified maleic anhydride surface does not suffice. Adur teaches adhesive thermoplastic olefinic compositions (column 2: lines 64-66). Accordingly, a substrate is formed whereby the components are dispersed throughout. Adur does *not* teach or suggest a coextruded polymeric substrate

² M.P.E.P. § 2143.01 “The mere fact that references *can* be combined or modified *does not render the resultant combination obvious unless* the prior art also suggests the desirability of the combination.” (emphasis added). *In re Fritch*, 23 USPQ2d 1780, 1783-1784 (Fed. Cir. 1992), citing *In re Gordon*, 221 USPQ 1125, 1127 (Fed. Cir 1984).

³ M.P.E.P. § 2143.02 “Obviousness does not require absolute predictability, however, at least some degree of predictability is required.”

comprising a first outer surface of a *maleic anhydride modified* layer and a second outer surface of a *polyolefin* layer.

It is also noted that Hubbard is directed to *primer* technology whereas Adur is directed to *adhesive* technology. An advantage of the instant invention is the adhesion of a barrier coating without the application of a *primer layer* (see specification at p. 2: lines 19-21). Since the instant invention does not require a primer layer, the examiner's reliance on Hubbard in the instant case is inappropriate.

Furthermore, a primer is "applied prior to the application of a[n] . . . adhesive" and is also referred to as an "adhesive promoter" (see primer definition attached in Applicant response dated 12/13/2004). At the very least, since a primer is defined as an "adhesive promoter" it is distinguishable from an adhesive. Accordingly, the terms "primer" and "adhesive" are not interchangeable. Thus, there would be no *motivation* to combine references directed to primer technology with that of adhesive technology or vice versa. Regarding the Examiner's reliance on Alger, defining the scope of polysilicates encompassing glass, the reference does not add merit to the construction of the rejection since the combination of Hubbard and Adur would *not* lead one of ordinary skill in the art to arrive at the instant invention as set forth above.

Finally, the Examiner's reliance on Krueger does not support the instant rejection. Krueger teaches a coextruded substrate comprising a polypropylene layer and an *adhesive blend layer* of polypropylene grafted maleic anhydride and further consisting of a nylon layer (column 1: lines 56-60). This reference is deficient for at least two reasons. First, the polypropylene grafted maleic anhydride layer taught by Krueger is a *blend* whereas the instant invention is not

drawn to a blend⁴. Second, the third layer described by Krueger is nylon whereas in the instant invention the third layer is a polysilicate coating. There is no teaching in any of the documents cited making obvious a polysilicate coating over the disclosed nylon layer in Krueger.

For the reasons set forth above the 35 U.S.C. § 103(a) rejection based on Hubbard in view of Adur and Krueger, as evidenced by Alger should be reversed.

(ii) CLAIMS 13-22, 25, AND 26

Reversal of the rejection of claims 13-22, 25, and 26 for the reasons set forth in section B(i) is requested.

C. *Arguments to Reverse Rejections of Record for Claims 11 and 12*

The Examiner argues claims 11 and 12 of the instant invention, drawn to a coated polymeric article/film, would have been obvious and therefore unpatentable over the teachings of Hubbard in view of Adur and Krueger, as evidenced by Alger, as applied to claims 10 and 13-26, and further in view of Jones (US Patent No. 3,442,686). This rejection should be reversed.

The Examiner's sole reliance on Jones is predicated on the disclosure of top coats, particularly nitrocellulose. Since Jones does not rectify substantive deficiencies in the rejection of claim 10, as set forth in section B(i) that would obviate the instant rejection, the instant rejection is improper, *i.e.* the rejection of claim 10 is improper rendering this rejection improper.

Reversal of the rejection of claims 11 and 12 is requested.

⁴ The instant invention is drawn to a coated polymeric article comprising a coextruded polymeric substrate consisting of a first outer surface of a maleic anhydride modified polyolefin layer and a second outer surface of a selected polyolefin layer; and (b) a polysilicate coating on the maleic anhydride modified layer. See, e.g., the specification at page 9, lines 11-14, wherein a copolymer is coextruded with a homopolymer), wherein the co-polymer consists of one side being modified by grafting maleic anhydride groups, *i.e.* there is no indication of a *blend* (see the specification at p. 9: lines 11-14).

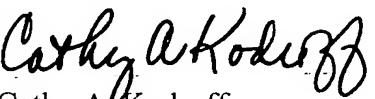
D. *Conclusion*

For the reasons set forth above, Appellant maintains that the combination of the cited prior art, when the teachings are taken as a whole, fails to supply both the motivation and a reasonable expectation of success required for a proper 35 U.S.C. § 103(a) rejection. Moreover, even if combined, none of the references alone or in any combination teach or suggest a coated polymeric article or film comprising a maleic anhydride modified polyolefin and a polyolefin *coextruded* to produce a polymeric substrate having a first outer surface consisting of a modified *maleic anhydride surface* and a second outer layer of a selected polyolefin wherein said article or film is coated with a polysilicate. Accordingly, the rejections should be reversed.

Reversal of the outstanding rejection of pending claims 10-26 under 35 USC § 103 is respectfully requested.

Respectfully submitted,
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(8) **Claims Appendix**

10. A coated polymeric article comprising:

- (a) a coextruded polymeric substrate consisting of a first outer surface of a maleic anhydride modified polyolefin layer and a second outer surface of a selected polyolefin layer; and
- (b) a polysilicate coating on the maleic anhydride modified layer.

11. The coated article according to claim 10, wherein said article further comprises a top coat.

12. The coated article according to claim 11, wherein the top coat is selected from the group consisting of polymethacrylate, cellulose acetate, and cellulose nitrate.

13. The article according to claim 10, wherein the substrate is characterized by a thickness ranging from about 20 to about 50 mil.

14. The article according to claim 10, wherein the article is a film.

15. The article according to claim 14, wherein the article is biaxially oriented.
16. The article according to claim 14, wherein the substrate has a thickness between about 0.5 mil to 2 mil prior to coating.
17. The article according to claim 10, wherein the article is a bottle.
18. The article according to claim 10, wherein the selected polyolefin is polypropylene.
19. The article according to claim 10, wherein said polysilicate coating has a thickness ranging from about 200 to about 500 nm.
20. The article according to claim 10, wherein said polysilicate coating comprises a lithium polysilicate.
21. The article according to claim 10, wherein said polysilicate coating comprises a lithium-potassium copolysilicate.

22. The article according to claim 10, wherein the article is selected from the group consisting of bottles, jars, lidlocks and blister packs.

23. A coated polymeric article comprising:

(a) a coextruded polymeric substrate consisting of a first outer surface of a maleic anhydride modified polyolefin layer and a second outer surface of a selected polyolefin layer; and

(b) a polysilicate coating on the maleic anhydride modified layer,
wherein the article has an oxygen transmission rate of 3 to 15
cc/m²/day.

24. A coated polymeric film comprising:

(a) a coextruded polymeric substrate consisting of a first outer surface of a maleic anhydride modified polyolefin layer and a second outer surface of a selected polyolefin layer; and

(b) a polysilicate coating on the maleic anhydride modified layer.

25. The film according to claim 24, wherein said polysilicate coating has a thickness ranging from about 0.5 μm.

26. The film according to claim 24, wherein said polysilicate coating comprises a lithium-potassium copolysilicate.

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(9) **Evidence Appendix**

None.

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(10) Related Proceedings Appendix

No decision was rendered by the Board in the proceeding identified in section (2) pursuant to 37 CFR 41.37(c)(1)(ii).